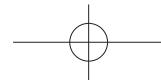


# M

SERIES





## SELECTION

Choose the model that best matches room conditions.

STEP 1		SELECT SERIES
A multiple series line-up to choose from, each with various outstanding features. In addition to inverter-equipped models, constant-speed, floor-standing and cassette models can be selected. Choose the best series to match usage needs.		
<b>Wall-mounted Units</b>		
<b>MSZ-F SERIES</b>  <b>DC Inverter</b> Super energy-saving SEER 25/35 SCOP 25/35 Ultra-quiet Cooling Heating MXZ connection	<b>MSZ-E SERIES</b>  <b>DC Inverter</b> Super energy-saving SEER 25/35 SCOP 25/35 Ultra-quiet Cooling Heating MXZ connection	
<b>MSZ-S SERIES</b>  <b>DC Inverter</b> Super energy-saving SEER A+ SCOP A+ Cooling Heating MXZ connection	<b>MSZ-G SERIES</b>  <b>DC Inverter</b> Super energy-saving SEER A++ SCOP A++ Cooling Heating MXZ connection	<b>MSZ-H SERIES</b>  <b>DC Inverter</b> Super energy-saving SEER A+ SCOP A+ Cooling Heating MXZ connection
<b>Floor-standing</b>	<b>Cassette Units</b>	
<b>MFZ SERIES</b>  <b>DC Inverter</b> Super energy-saving SEER 25 SCOP 25/35 Cooling Heating MXZ connection	<b>MLZ SERIES</b>  <b>DC Inverter</b> Super energy-saving SEER 50 SCOP 50 Cooling Heating MXZ connection	* MXZ connection only
<b>DC Inverter</b> Inverter <b>MXZ</b> connection	Super energy-saving SEER A SCOP A Energy Rank Ultra-quiet operation Cooling and heating operation	
Compatible for connection to MXZ Series system * To confirm compatibility with the MXZ Series multi-type system, refer to the MXZ Series page.		

STEP 2		SELECT OUTDOOR UNIT
Some outdoor units in the line-up have heaters for use in cold regions. Units with an "H" in the model name are equipped with heaters.		
<b>Heater Installed</b>		
 <b>MUFZ-KJ25/35VEHZ</b> <b>MUFZ-KJ50VEHZ</b>  <b>MUFZ-KJ50VEHZ</b>		
<b>Selecting a Heater-equipped Model</b> In regions with the following conditions, there is a possibility that water resulting from condensation on the outdoor unit when operating in the heating mode will freeze and not drain from the base. 1) Cold outdoor temperatures (temperature does not rise above 0°C all day) 2) Areas where dew forms easily (in the mountains, valleys(surrounded by mountains), near a forest, near unfrozen lakes, ponds, rivers or hot springs), or areas with snowfall To prevent water from freezing in the base, it is recommended that a unit with a built-in heater be purchased. Please ask your dealer representative about the best model for you.		



# MSZ-F SERIES

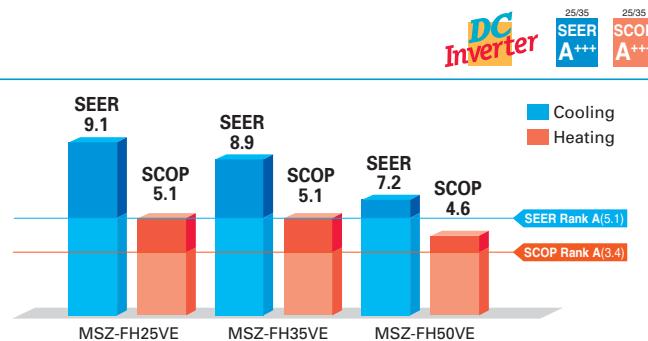
The F Series is designed for optimum cooling/heating performance as well as operational comfort. Quiet, energy-saving operation is supported by some of Mitsubishi Electric's latest technologies. Advanced functions such as "3D i-see Sensor" temperature control and the Plasma Quad air purification system raise room comfort levels to new heights.

MSZ-FH25/35/50VE



## High Energy Efficiency

Power consumption has been reduced for the cooling and heating modes thanks to the incorporation of our newest inverter technologies. The high energy efficiency of the Size 25 units has obtained a rating of more than 5.0 for both seasonal coefficient of performance (SCOP) and seasonal energy efficiency rating (SEER).

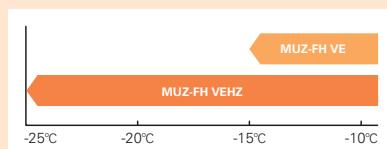


## Hyper Heating

The Hyper Heating feature is incorporated, realizing powerful heating even in the harsh cold. Even users in cold regions can comfortably rely on the MSZ-FH Series for all their heating needs.

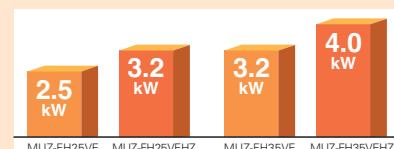
### Operation Guaranteed at Outside Temperature of -25°C

MUZ-FH VEHZ can be operated at outside temperatures as low as -25°C, so there are no concerns about use even in very cold climates.



### Rated Capacity Demonstrated at Outside Temperatures of -15°C

With rated capacity ensured at outside temperature as low as -15°C, the FH Series can be relied upon to properly warm living spaces even in severe cold snaps.



### Freeze-prevention Heater Equipped as Standard (VEHZ)

The Freeze-prevention heater prevents lowered capacity due to the drain freezing and also inhibits operation shutdowns.



### Selecting a Heater-equipped Model

In regions with the following conditions, there is a possibility that water resulting from condensation on the outdoor unit when operating in the heating mode will freeze and not drain from the base.

- 1) Cold outdoor temperatures (temperature does not rise above 0°C all day)
- 2) Areas where dew forms easily (in the mountains, valleys(surrounded by mountains), near a forest, near unfrozen lakes, ponds, rivers or hot springs), or areas with snowfall

To prevent water from freezing in the base, it is recommended that a unit with a built-in heater be purchased. Please ask your dealer representative about the best model for you.

## Plasma Quad

Air, like water, is something we use everyday unconsciously. Yet, clean, fresh air is a vital part of creating a healthy space for humans. Achieving this healthy air is Plasma Quad, a plasma-based filter system that effectively removes four kinds of air pollutants; namely, bacteria, viruses, allergens and dust, which the air contains countless particles of.

**Bacteria**

Test results have confirmed that Plasma Quad neutralizes 99% of bacteria in 115 minutes in a 25m<sup>3</sup> test space.

Plasma Quad off      Plasma Quad on

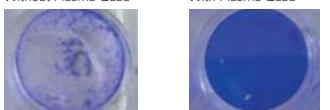


⟨Test No.⟩KRCES-Bio.Test Report No.23\_0371

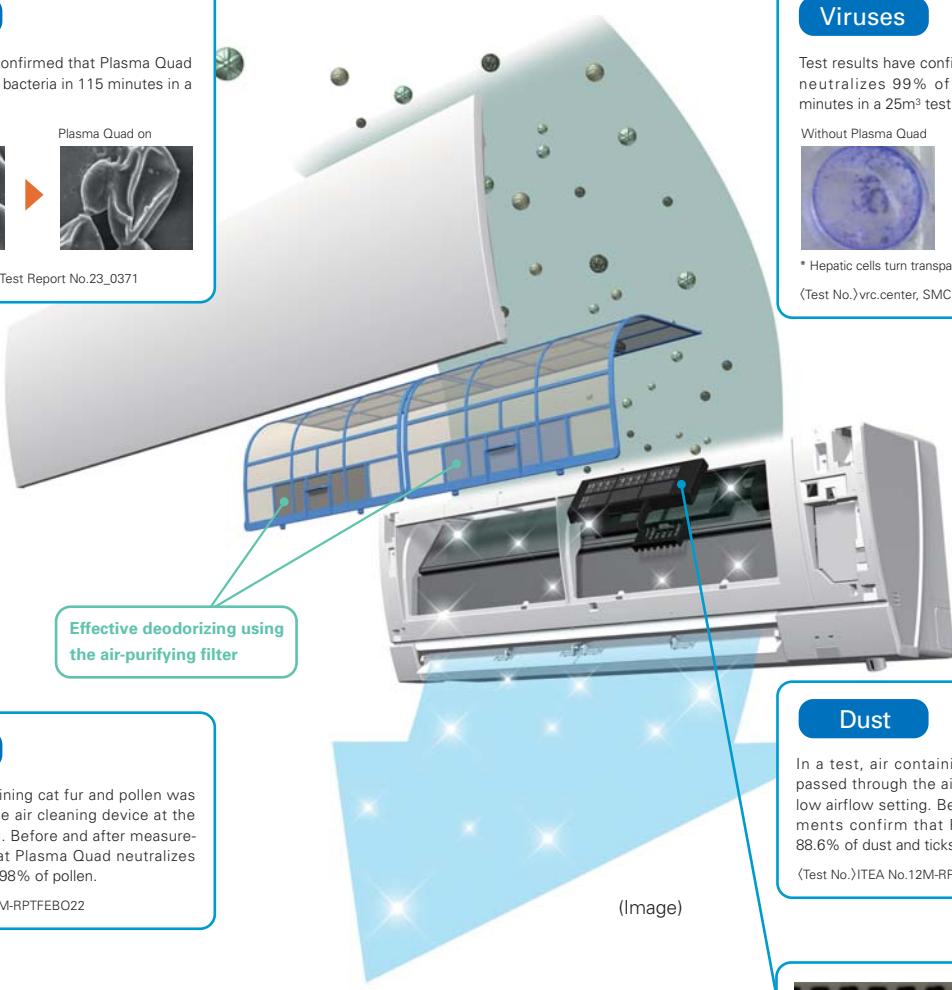
**Viruses**

Test results have confirmed that Plasma Quad neutralizes 99% of virus particles in 65 minutes in a 25m<sup>3</sup> test space.

Without Plasma Quad      With Plasma Quad



\* Hepatic cells turn transparent when affected by a virus.  
⟨Test No.⟩vrc.center, SMC No.23-002



Effective deodorizing using the air-purifying filter

(Image)

**Allergens**

In a test, air containing cat fur and pollen was passed through the air cleaning device at the low airflow setting. Before and after measurements confirm that Plasma Quad neutralizes 94% of cat fur and 98% of pollen.

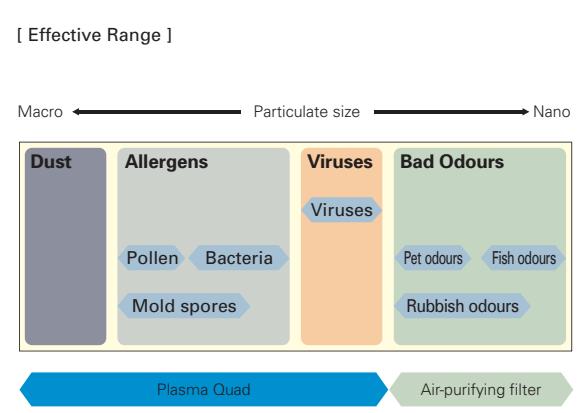
⟨Test No.⟩ITEA No.12M-RPTFEBO22

**Dust**

In a test, air containing dust and ticks was passed through the air cleaning device at the low airflow setting. Before and after measurements confirm that Plasma Quad removes 88.6% of dust and ticks.

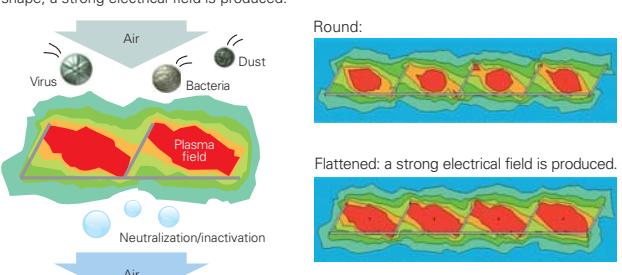
⟨Test No.⟩ITEA No.12M-RPTFEBO22

**[ Effective Range ]**



**Principle of Plasma Quad**

Plasma Quad attacks bacteria and viruses from inside the unit using a strong curtain-like electrical field and discharge of electric current across the whole inlet-air opening of the unit. Tungsten discharge electrodes are used as they provide both discharge capacity and strength. In addition, through flattening the standard, round form of the field to a ribbon-like shape, a strong electrical field is produced.



Round:  
Flattened: a strong electrical field is produced.

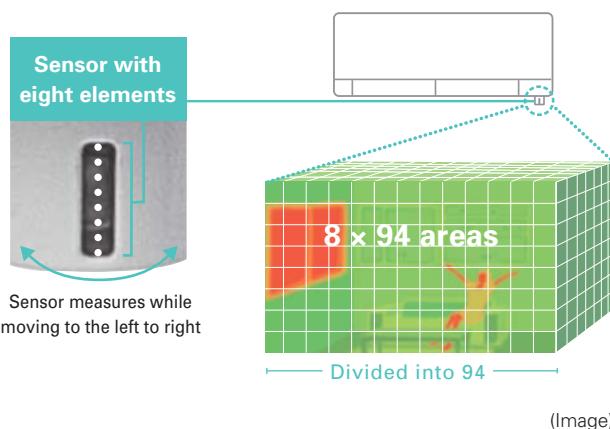
32

P029-048.indd 32

13.12.12 1:18:35 PM

## 3D i-see Sensor

The FH Series is equipped with 3D i-see Sensor, an infrared-ray sensor that measures the temperature at distant positions. While moving to the left and right, eight vertically arranged sensor elements analyze the room temperature in three dimensions. This detailed analysis makes it possible to judge where people are in the room, thus allowing creation of features such as "Indirect airflow," to avoid airflow hitting people directly, and "direct airflow" to deliver airflow to where people are.



### Indirect Airflow

The indirect airflow setting can be used when the flow of air feels too strong or direct. For example, it can be used during cooling to avert airflow and prevent body temperature from becoming excessively cooled.



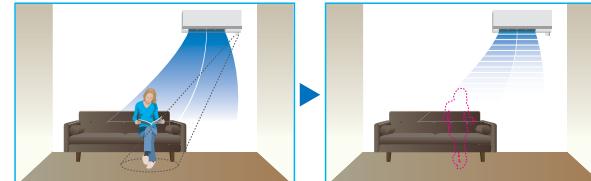
### Direct Airflow

This setting can be used to directly target airflow at people such as for immediate comfort when coming indoors on a hot (cold) day.



### Absence Detection

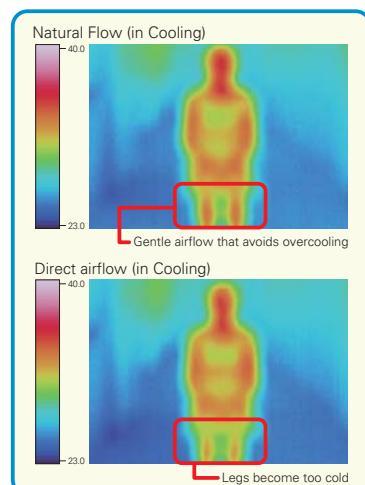
The sensors detect whether there are people in the room. When no-one is in the room, the unit automatically switches to energy-saving mode.



The "3D i-see Sensor" detects people's absence and the power consumption is automatically reduced approximately 10% after 10 minutes and 20% after 60 minutes.

## Natural Flow

To create "healthy" airflow, the most important aspect is that the flow of air feels natural. Mitsubishi Electric's solution to this is Natural Flow, only possible thanks to our technology that freely and flexibly controls airflow.



Through realizing airflow that imitates a natural breeze, we have avoided the unpleasant feeling of being hit directly by constant, unnatural airflow.

### Base data for Natural Flow



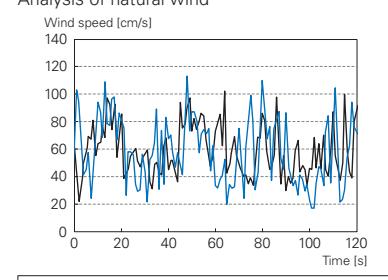
Kirigamine Highland

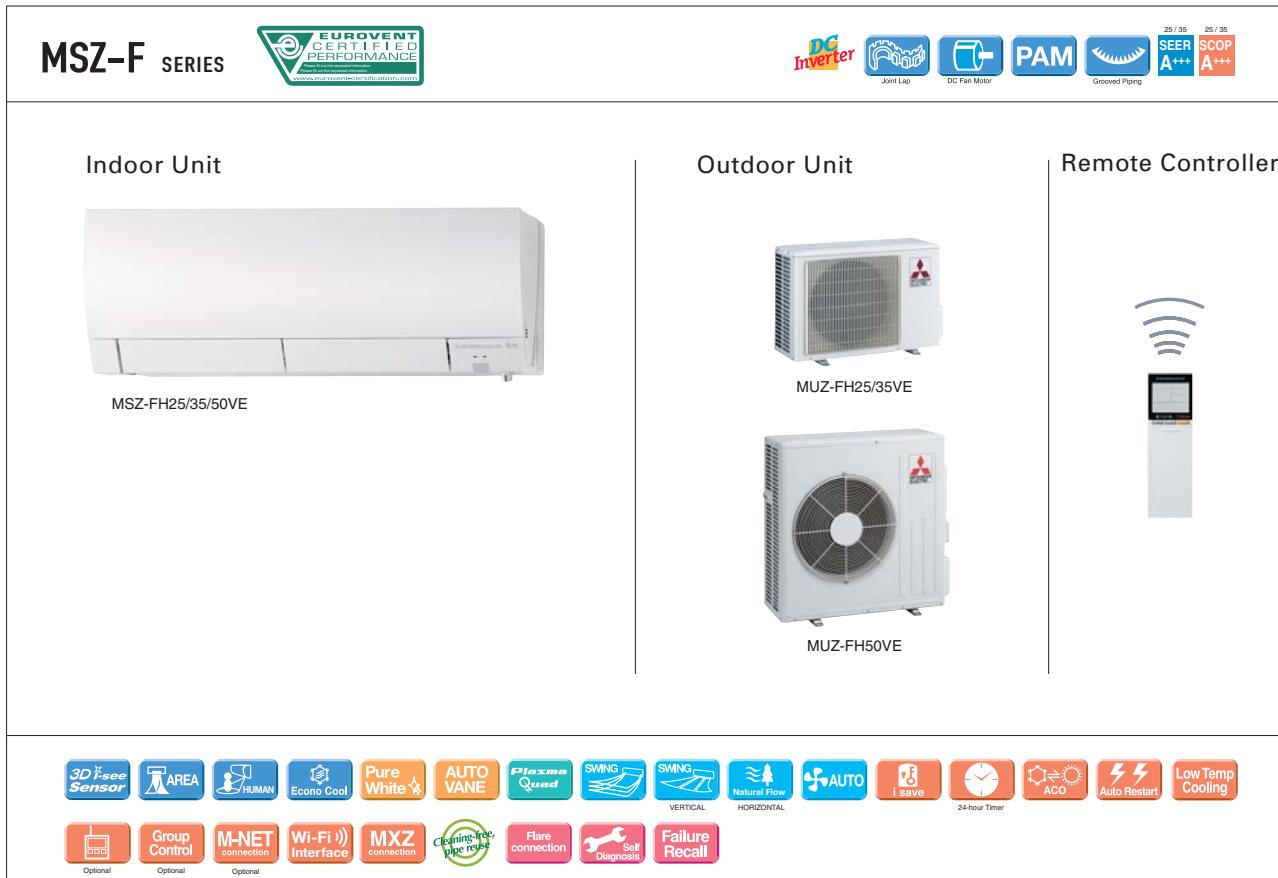


measuring actual data of natural wind

Kirigamine Highland is one of the most famous sightseeing spots in Japan, and is visited by a large number of people for its pleasant and comfortable environment. At Mitsubishi Electric, we have attempted to recreate this Kirigamine Highland comfort. As part of development, seeking to create a natural airflow, we measured actual data on the refreshing breezes of Kirigamine Highland. Through imitating the natural waveforms of this data, we have been able to recreate almost-imperceptible currents of gently comforting airflow.

### Analysis of natural wind





Type		Inverter Heat Pump		
Indoor Unit		MSZ-FH25VE	MSZ-FH35VE	MSZ-FH50VE
Outdoor Unit		MUZ-FH25VE	MUZ-FH35VE	MUZ-FH50VE
Refrigerant		R410A <sup>(1)</sup>		
Power Supply	Source		Outdoor Power supply	
	Outdoor (V / Phase / Hz)		230/Single/50	
Cooling	Design load	kW	2.5	3.5
	Annual electricity consumption <sup>(2)</sup>	kWh/a	96	138
	SEER <sup>(4)</sup>		9.1	8.9
Heating (Average Season) <sup>(5)</sup>	Energy efficiency class		A+++	A++
	Rated	kW	2.5	3.5
	Min-Max	kW	1.4-3.5	0.8-4.0
Operating Current (Max)	Total Input	kW	0.485	0.820
	Design load	kW	3.0(-10°C)	3.6(-10°C)
	Declared Capacity	kW	3.0(-10°C)	3.6(-10°C)
Indoor Unit	at reference design temperature	kW	3.0(-10°C)	4.5(-10°C)
	at bivalent temperature	kW	3.0(-10°C)	4.5(-10°C)
	at operation limit temperature	kW	2.5(-15°C)	5.2(-15°C)
Outdoor Unit	Back up heating capacity	kW	0.0(-10°C)	0.0(-10°C)
	Annual electricity consumption <sup>(2)</sup>	kWh/a	819	986
	SCOP <sup>(4)</sup>		5.1	4.6
Ext. Piping	Energy efficiency class		A+++	A++
	Rated	kW	3.2	4.0
	Min-Max	kW	1.8-5.5	1.0-6.3
	Total Input	kW	0.580	0.800
Operating Current (Max)		A	9.6	10.0
Input		Rated	0.029	0.029
Operating Current (Max)		A	0.4	0.4
Dimensions		H*W*D	305(+17)-925-234	305(+17)-925-234
Weight		kg	13.5	13.5
Air Volume (Slo-Lo-Mid-Hi-SH <sup>(3)</sup> ) (Dry/Wet)		Cooling	m <sup>3</sup> /min	3.9-4.7-6.3-8.6-11.6
		Heating	m <sup>3</sup> /min	4.0-4.7-6.4-9.2-13.2
Sound Level (SPL) (Slo-Lo-Mid-Hi-SH <sup>(3)</sup> )		Cooling	dB(A)	20-23-29-36-42
		Heating	dB(A)	20-24-29-36-44
Sound Level (PWL)		Cooling	dB(A)	58
		Heating	dB(A)	60
Dimensions		H*W*D	mm	550-800-285
Weight		kg	37	37
Air Volume		Cooling	m <sup>3</sup> /min	31.3
		Heating	m <sup>3</sup> /min	31.3
Sound Level (SPL)		Cooling	dB(A)	46
		Heating	dB(A)	49
Sound Level (PWL)		Cooling	dB(A)	60
		Heating	dB(A)	61
Operating Current (Max)		A	9.6	9.6
Breaker Size		A	9.2	10
Diameter		Liquid/Gas	mm	6.35/9.52
Max.Length		Out-In	m	20
Max.Height		Out-In	m	12
Guaranteed Operating Range (Outdoor)		Cooling	°C	-10 ~ +46
		Heating	°C	-15 ~ +24
Guaranteed Operating Range (Indoor)		Cooling	°C	-10 ~ +46
		Heating	°C	-15 ~ +24

(\*) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(\*\*) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(<sup>3</sup>) SH: Super High

(<sup>4</sup>) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

(<sup>5</sup>) Please see page 47 for heating (warmer season) specifications.



# MSZ-E SERIES

Developed to complement modern interior room décor, Kirigamine ZEN air conditioners are available in three colours specially chosen to blend in naturally wherever installed.

MSZ-EF18-50VE2B



## Stylish Line-up Matches Any Room Décor

The streamlined wall-mounted indoor units have eloquent silver-bevelled edges, expressing sophistication and quality. Combining impressively low power consumption and quiet yet powerful performance, these units provide a best-match scenario for diverse interior designs while simultaneously ensuring maximum room and energy savings.



**DC Inverter**  
25-35 SEER A+++  
25-42\* SCOP A++  
\*except for VEH

## Energy-efficient Operation

All models in the series have achieved high energy-savings rating, and are contributing to reduced energy consumption in homes, offices and a range of other settings. Offered in a variety of output capacities and installation patterns, the vast applicability promises an ideal match for any user.

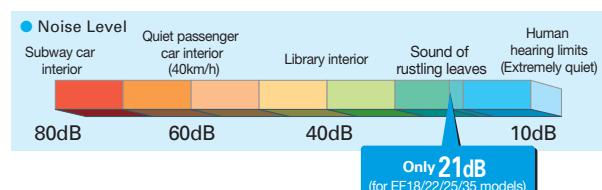
Outdoor		Rank A for single connection						
Indoor	Outdoor	MUZ-EF25/35VE(H)		MUZ-EF42/50VE				
MSZ-EF18VE2	2D33VA	✓	✓	✓	✓	✓	✓	✓
MSZ-EF22VE2	2D40VA	✓	✓	✓	✓	✓	✓	✓
MSZ-EF25VE2	2D53VA	✓	✓	✓	✓	✓	✓	✓
MSZ-EF35VE2	3D54VA	✓	✓	✓	✓	✓	✓	✓
MSZ-EF42VE2	3D68VA	✓	✓	✓	✓	✓	✓	✓
MSZ-EF50VE2	4D72VA	✓	✓	✓	✓	✓	✓	✓
	4D72VA	✓	✓	✓	✓	✓	✓	✓
	4D83VA	✓	✓	✓	✓	✓	✓	✓
	5D102VA	✓	✓	✓	✓	✓	✓	✓
	6C122VA	✓	✓	✓	✓	✓	✓	✓

\*VEH

Compatibility		MXZ							
2D33VA	2D40VA	2D53VA	3D54VA	3D68VA	4D72VA	4D83VA	5D102VA	6C122VA	
✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	
✓	✓	✓	✓	✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓	
	✓	✓	✓	✓	✓	✓	✓	✓	

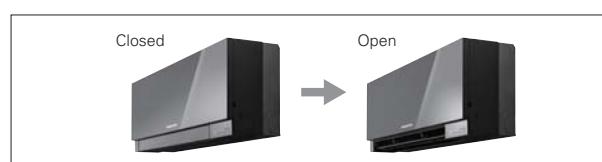
## Quiet Comfort All Day Long

Mitsubishi Electric's advanced "Silent Mode" fan speed setting provides super-quiet operation as low as 21dB for EF18/22/25/35 models. This unique feature makes the Kirigamine ZEN series ideal for use in any situation.



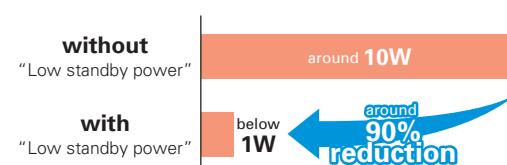
## Superior Exterior and Operating Design Concept

The indoor unit of the Kirigamine ZEN keeps its amazingly thin form even during operation. The only physical change notable is the movement of the variable vent. As a result, a slim attractive look is maintained.



## Low Standby Power

Electrical devices consume standby power even when they are not in actual use. While we obviously strive to reduce power consumption during actual use, reducing this wasted power that cannot be seen is also very important.



## Outdoor Units for Cold Region (25/35)

Single split-type outdoor units are available in both standard and heater-equipped units. An electric heater is installed in each unit to prevent freezing in cold outdoor environments.

Standard Units



MUZ-EF25/35VE

Heater Installed



MUZ-EF25/35VEH

**MSZ-E SERIES**









25 - 35 25 - 42<sup>+</sup>  
SEER A+++ SCOP A++

**Indoor Unit**



MSZ-EF18/22/25/35/42/50VE2W White



MSZ-EF18/22/25/35/42/50VE2S Silver



MSZ-EF18/22/25/35/42/50VE2B\* Black

**Outdoor Unit**



MUZ-EF25/35VE(H),42VE



MUZ-EF50VE

**Remote Controller**



\*Soft-dry Cloth is enclosed with Black models.



























Type		Inverter Heat Pump																	
Indoor Unit		MSZ-EF18VE2	MSZ-EF22VE2	MSZ-EF25VE2	MSZ-EF25VE2	MSZ-EF35VE2	MSZ-EF35VE2	MSZ-EF42VE2	MSZ-EF50VE2	MSZ-EF50VE									
Outdoor Unit		for MXZ connection																	
Refrigerant																			
R410A <sup>(1)</sup>																			
Power Supply																			
Outdoor (V / Phase / Hz)																			
230V/Single/50																			
Cooling	Design load	kW	-	-	2.5	2.5	3.5	3.5	4.2	5.0									
	Annual electricity consumption <sup>(2)</sup>	kWh/a	-	-	103	103	144	144	192	244									
	SEER <sup>(4)</sup>		-	-	8.5	8.5	8.5	8.5	7.7	7.2									
Heating (Average Season) <sup>(5)</sup>	Energy efficiency class		-	-	A+++	A+++	A+++	A+++	A++	A++									
	Capacity	kW	-	-	2.5	2.5	3.5	3.5	4.2	5.0									
	Total Input	Rated	kW	-	1.2-3.4	1.2-3.4	1.4-4.0	1.4-4.0	0.9-4.6	1.4-5.4									
Back up heating capacity	Design load	kW	-	-	2.4(-10°C)	2.4(-10°C)	2.9(-10°C)	2.9(-10°C)	3.8(-10°C)	4.2(-10°C)									
	Declared Capacity	at reference design temperature	kW	-	2.4(-10°C)	2.4(-10°C)	2.9(-10°C)	2.9(-10°C)	3.8(-10°C)	4.2(-10°C)									
	at bivalent temperature	kW	-	-	2.4(-10°C)	2.4(-10°C)	2.9(-10°C)	2.9(-10°C)	3.8(-10°C)	4.2(-10°C)									
SCOP <sup>(4)</sup>	at operation limit temperature	kW	-	-	2.0(-15°C)	1.6(-20°C)	2.4(-15°C)	1.7(-20°C)	3.4(-15°C)	3.5(-15°C)									
	Annual electricity consumption <sup>(2)</sup>	kWh/a	-	-	0.0(-10°C)	0.0(-10°C)	0.0(-10°C)	0.0(-10°C)	0.0(-10°C)	0.0(-10°C)									
	Energy efficiency class		-	-	4.7	4.6	4.6	4.5	4.6	4.5									
Operating Current (Max)	Capacity	Rated	kW	-	3.2	3.2	4.0	4.0	5.4	5.8									
	Min-Max	kW	-	-	1.1-4.2	1.1-4.2	1.8-5.5	1.8-5.5	1.4-6.3	1.6-7.5									
	Total Input	Rated	kW	-	0.700	0.700	0.955	0.955	1.460	1.565									
Indoor Unit		A	-	-	7.3	7.3	8.5	8.5	9.5	12.4									
Outdoor Unit		Input	Rated	kW	0.027	0.027	0.027	0.031	0.031	0.034									
Ext. Piping		Operating Current (Max)	A	0.3	0.3	0.3	0.3	0.3	0.3	0.4									
		Dimensions	H*W*D	mm	299-895-195	299-895-195	299-895-195	299-895-195	299-895-195	299-895-195									
		Weight	kg	11.5	11.5	11.5	11.5	11.5	11.5	11.5									
		Air Volume (Slo-Lo-Mid-Hi-Sh <sup>(3)</sup> ) (Dry/Wet)	Cooling	m <sup>3</sup> /min	40-46-63-83-105	40-46-63-83-105	40-46-63-83-105	40-46-63-83-105	58-68-77-89-103	58-68-77-89-110									
		Heating	m <sup>3</sup> /min	40-46-62-89-119	40-46-62-89-119	40-46-62-89-119	40-46-62-89-127	55-63-78-99-127	64-73-90-111-132										
		Sound Level (SPL) (Slo-Lo-Mid-Hi-Sh <sup>(3)</sup> )	Cooling	dB(A)	21-23-29-36-42	21-23-29-36-42	21-23-29-36-42	21-24-29-36-42	28-31-35-39-42	30-33-36-40-43									
		Heating	dB(A)	21-24-29-37-45	21-24-29-37-45	21-24-29-37-45	21-24-30-38-46	21-24-30-38-46	28-30-35-41-48	30-33-37-43-49									
		Sound Level (PWL)	Cooling	dB(A)	-	60	60	60	60	60									
		Dimensions	H*W*D	mm	-	550-800-285	550-800-285	550-800-285	550-800-285	880-840-330									
		Weight	kg	-	30	30	35	35	35	54									
		Air Volume	Cooling	m <sup>3</sup> /min	-	32.6	32.6	33.6	33.6	44.6									
		Heating	m <sup>3</sup> /min	-	32.2	32.2	33.6	33.6	51	52									
		Sound Level (SPL)	Cooling	dB(A)	-	47	47	49	50	65									
		Heating	dB(A)	-	48	48	50	50	62	65									
		Sound Level (PWL)	Cooling	dB(A)	-	58	58	61	61	9.2									
		Operating Current (Max)	A	-	7.0	7.0	8.2	8.2	12.0	16									
		Breaker Size	A	-	10	10	10	10	10	16									
		Diameter	Liquid/Gas	mm	-	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7									
		Max.Length	Out-In	m	-	20	20	20	20	30									
		Max.Height	Out-In	m	-	12	12	12	12	15									
		Guaranteed Operating Range (Outdoor)	Cooling	°C	-	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46									
		Heating	°C	-	-15 ~ +24	-20 ~ +24	-15 ~ +24	-20 ~ +24	-15 ~ +24	-15 ~ +24									

(\*) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(\*\*) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(<sup>(3)</sup>) SH: Super High

(<sup>(4)</sup>) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

(<sup>(5)</sup>) Please see page 47 for heating (warmer season) specifications.

# MSZ-S MSZ-G

SERIES



Introducing a compact and stylish indoor unit with amazingly quiet performance. Not only are neat installations in small bedrooms possible, increase energy-savings by selecting the optimal capacity required for each room.

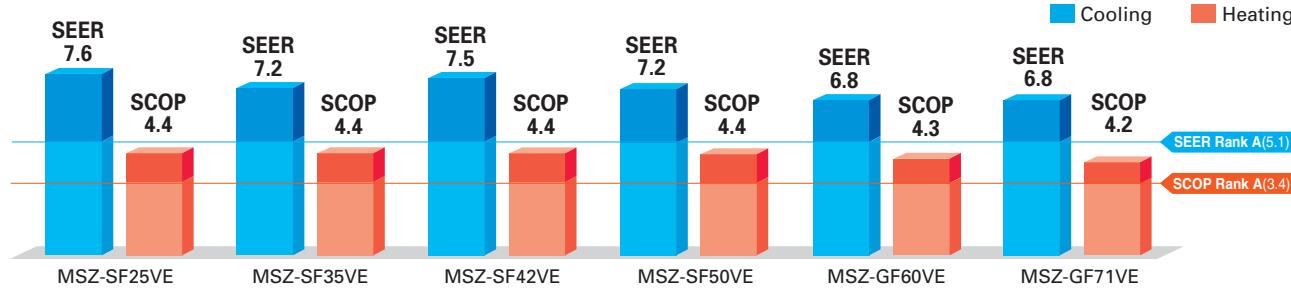
DC Inverter

25-71  
SEER  
A++

25-71  
SCOP  
A+

## "Rank A++/A+" Energy Savings Achieved for Entire Range of Series

All models in the series, from the low-capacity 25 to the high-capacity 71, have achieved the "Rank A++" for SEER and "Rank A+" for SCOP as energy-savings rating. For home use, such as in bedrooms and living rooms, to light commercial use, such as in offices, our air conditioners are contributing to reduced energy consumption in a wide range.



## Wide Line-up

Eight different indoor units (Model 15-71) are available to meet your diversified air conditioning needs.



MSZ-SF15 / 20VA\*  
\*for MXZ connection



MSZ-SF25 / 35 / 42 / 50VE



MSZ-GF60 / 71VE

## Compact and Stylish

(MSZ-SF15/20VA)

The stylish, square indoor unit adds a touch of class to any room interior. The compact design is 64mm thinner than our previous indoor unit with the lowest output capacity (MSZ-GE22VA).

### Comparison with our previous model GE



## Family Design

(MSZ-SF15/20/25/35/42/50)

Models in the 25-50 class are introduced as single-split units while retaining the popular design of the SF15/20VA\* as indoor units exclusively for multi-systems. From small rooms to living rooms, it is possible to coordinate residences with a unified design.

\*Size may vary.



## “Weekly Timer”



Easily set desired temperatures and operation start/stop times to match lifestyle patterns. Reduce wasted energy consumption by using the timer to prevent forgetting to turn off the unit and eliminate temperature setting adjustments.

### ■ Example Operation Pattern (Winter/Heating mode)

	Mon.	Tues.	Wed.	Thurs.	Fri.	Sat.	Sun.
6:00	ON 20°C						
8:00							
10:00	OFF	OFF	OFF	OFF	OFF	ON 18°C	ON 18°C
12:00							
14:00							
16:00							
18:00	ON 20°C						
20:00							
22:00							
(during sleeping hours)	ON 18°C						



**Pattern Settings:** Input up to four settings for each day

**Settings:** •Start/Stop operation •Temperature setting \*The operation mode cannot be set.

### ■ Easy set-up using dedicated buttons



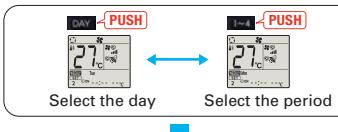
The remote controller is equipped with buttons that are used exclusively for setting the Weekly Timer. Setting operation patterns is easy and quick.



#### How to set the Weekly Timer



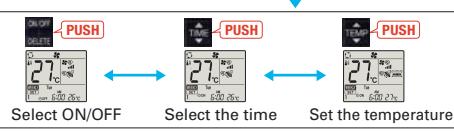
Ready to set



Select the day      Select the period



Complete



- Start by pushing the “SET” button and follow the instructions to set the desired patterns. Once all of the desired patterns are input, point the top end of the remote controller at the indoor unit and push the “SET” button one more time. (Push the “SET” button only after inputting all of the desired patterns into the remote controller memory. Pushing the “CANCEL” button will end the set-up process without sending the operation patterns to the indoor unit).
- It takes a few seconds to transmit the Weekly Timer operation patterns to the indoor unit. Please continue to point the remote controller at the indoor unit until all data has been sent.
- When “Weekly Timer” is set, temperature can not be set 10°C.

## Low Standby Power

Electrical devices consume standby power even when they are not in actual use. While we obviously strive to reduce power consumption during actual use, reducing this wasted power that cannot be seen is also very important.

#### without

“Low standby power”

around 10W

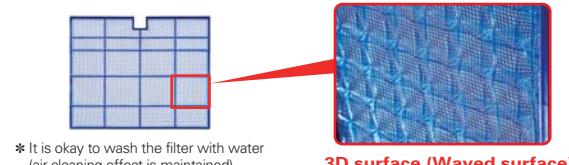
#### with

“Low standby power”

below 1W      around 90% reduction

## Nano Platinum Filter (MSZ-SF25/35/42/50, MSZ-GF60/71)

This filter incorporates nanometre-sized platinum-ceramic particles that generate stable antibacterial and deodourising effects. The size of the three-dimensional surface has been increased as well, enlarging the filter capture area. These features give the Nano Platinum Filter better dust collection performance than conventional filters. The superior air-cleaning effectiveness raises room comfort yet another level.

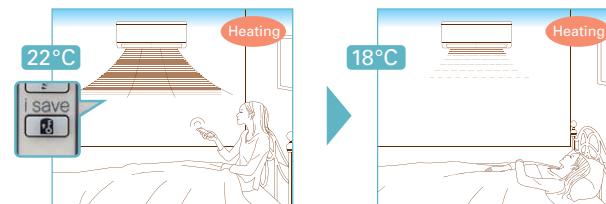


\* It is okay to wash the filter with water (air-cleaning effect is maintained)

## “i save” Mode



“i save” is a simplified setting function that recalls the preferred (preset) temperature by pressing a single button on the remote controller. Press the same button twice in repetition to immediately return to the previous temperature setting. Using this function contributes to comfortable, waste-free operation, realising the most suitable air conditioning settings and saving on power consumption when, for example, leaving the room or going to bed.



\* Temperature can be preset to 10°C when heating in the “i-save” mode (except when connected to MXZ-8B140VA/YA, MXZ-BB160VA/YA).

## Outdoor Units for Cold Region (25/35/42/50)

Single split-type outdoor units are available in both standard and heater-equipped units. An electric heater is installed in each unit to prevent freezing in cold outdoor environments.

#### Standard Units



MUZ-SF25/35/42VE

#### Heater Installed



MUZ-SF25/35/42VEH

## MSZ-S SERIES

DC Inverter

### Indoor Unit



MSZ-SF15/20VA

### Outdoor Unit

For MXZ Connection Only



### Remote Controller



Type		Inverter Heat Pump						
Indoor Unit		MSZ-SF15VA					MSZ-SF20VA	
Outdoor Unit		for MXZ connection					MSZ-SF25VE	
Refrigerant								R410A <sup>(1)</sup>
Power Supply	Source	Outdoor Power supply						
Outdoor (V / Phase / Hz)		230/Single/50						
Cooling	Design load	kW	-	-	2.5	2.5	3.5	3.5
	Annual electricity consumption <sup>(2)</sup>	kWh/a	-	-	116	116	171	171
	SEER <sup>(4)</sup>		-	-	7.6	7.6	7.2	7.2
	Energy efficiency class		-	-	A++	A++	A++	A++
Heating (Average Season) <sup>(5)</sup>	Capacity	Rated	kW	-	2.5	2.5	3.5	3.5
	Min-Max	kW	-	-	0.9-3.4	0.9-3.4	1.1-3.8	1.1-3.8
	Total Input	Rated	kW	-	0.600	0.600	1.080	1.080
	Design load	kW	-	-	2.4(-10°C)	2.4(-10°C)	2.9(-10°C)	2.9(-10°C)
SCOP <sup>(4)</sup>	Declared Capacity	at reference design temperature	kW	-	2.4(-10°C)	2.4(-10°C)	2.9(-10°C)	2.9(-10°C)
	at bivalent temperature	kW	-	-	2.4(-10°C)	2.4(-10°C)	2.9(-10°C)	2.9(-10°C)
	at operation limit temperature	kW	-	-	2.0(-15°C)	1.6(-20°C)	2.2(-15°C)	1.6(-20°C)
	Back up heating capacity	kW	-	-	0.0(-10°C)	0.0(-10°C)	0.0(-10°C)	0.0(-10°C)
Operating Current (Max)	Annual electricity consumption <sup>(2)</sup>	kWh/a	-	-	764	790	923	948
	SCOP <sup>(4)</sup>		-	-	4.4	4.3	4.4	4.3
	Energy efficiency class		-	-	A+	A+	A+	A+
	Capacity	Rated	kW	-	3.2	3.2	4.0	4.0
Indoor Unit	Min-Max	kW	-	-	1.0-4.1	1.0-4.1	1.3-4.6	1.3-4.6
	Total Input	Rated	kW	-	0.780	0.780	1.030	1.030
	Input	Rated	kW	0.017	0.019	0.024	0.027	0.027
	Operating Current (Max)	A	-	0.17	0.19	0.2	0.3	0.3
Outdoor Unit	Dimensions	H*W*D	mm	250-760-168	250-760-168	299-798-195	299-798-195	299-798-195
	Weight	kg	7.7	-	10	10	10	10
	Air Volume (Slo-Lo-Mid-Hi-SH <sup>(3)</sup> )	Cooling	m <sup>3</sup> /min	3.5 - 3.9 - 4.6 - 5.5 - 6.4	3.5 - 3.9 - 4.6 - 5.5 - 6.9	3.5 - 4.1 - 5.6 - 7.2 - 9.1	3.5 - 4.1 - 5.6 - 7.2 - 9.1	3.5 - 4.1 - 5.6 - 7.2 - 9.1
	Heating	m <sup>3</sup> /min	3.7 - 4.4 - 5.0 - 6.0 - 6.8	3.7 - 4.4 - 5.0 - 6.0 - 7.3	3.5 - 4.1 - 6.7 - 8.2 - 10.3	3.5 - 4.1 - 6.7 - 8.2 - 10.3	3.5 - 4.1 - 6.7 - 8.3 - 11.0	3.5 - 4.1 - 6.7 - 8.3 - 11.0
Ext. Piping	Sound Level (SPL) (Slo-Lo-Mid-Hi-SH <sup>(3)</sup> )	Cooling	dB(A)	21 - 26 - 30 - 35 - 40	21 - 26 - 30 - 35 - 42	21 - 24 - 30 - 36 - 42	21 - 24 - 30 - 36 - 42	21 - 24 - 30 - 36 - 42
	Heating	dB(A)	21 - 26 - 30 - 35 - 40	21 - 26 - 30 - 35 - 42	21 - 24 - 30 - 39 - 45	21 - 24 - 30 - 39 - 45	21 - 24 - 34 - 40 - 46	21 - 24 - 34 - 40 - 46
	Sound Level (PWL)	Cooling	dB(A)	-	-	57	57	57
	Heating	dB(A)	-	-	57	57	57	57
Guaranteed Operating Range (Outdoor)	Dimensions	H*W*D	mm	-	550-800-285	550-800-285	550-800-285	550-800-285
	Weight	kg	-	-	31	31	31	31
	Air Volume	Cooling	m <sup>3</sup> /min	-	31.1	31.1	35.9	35.9
	Heating	m <sup>3</sup> /min	-	-	30.7	30.7	35.9	35.9
Guaranteed Operating Range (Outdoor)	Sound Level (SPL)	Cooling	dB(A)	-	47	47	49	49
	Heating	dB(A)	-	-	48	48	50	50
	Sound Level (PWL)	Cooling	dB(A)	-	58	58	62	62
	Heating	dB(A)	-	-	8.2	8.2	8.2	8.2
Guaranteed Operating Range (Outdoor)	Operating Current (Max)	A	-	-	10	10	10	10
	Breaker Size	A	-	-	10	10	10	10
	Diameter	Liquid/Gas	mm	6.35/9.52	6.35/9.52	6.35 / 9.52	6.35 / 9.52	6.35 / 9.52
	Max.Length	Out-In	m	-	20	20	20	20
Guaranteed Operating Range (Outdoor)	Max.Height	Out-In	m	-	12	12	12	12
	Cooling	°C	-	-	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46
	Heating	°C	-	-	-15 ~ +24	-20 ~ +24	-15 ~ +24	-20 ~ +24

(1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(2) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(3) SH: Super High

(4) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

(5) Please see page 47 for heating (warmer season) specifications.











**Indoor Unit**



MSZ-SF25/35/42/50VE


MSZ-GF60/71VE

**Outdoor Unit**



MUZ-SF25/35/42VE(H)


MUZ-SF50VE(H)  
MUZ-GF60/71VE

**Remote Controller**






































Type		Inverter Heat Pump							
Indoor Unit		MSZ-SF42VE							
Outdoor Unit		MUZ-SF42VE							
R410A <sup>(1)</sup>									
Power Supply	Source	Outdoor Power supply							
Outdoor (V / Phase / Hz)		230/Single/50							
Cooling	Design load	kW	4.2	4.2	5	5	6.1	7.1	
	Annual electricity consumption <sup>(2)</sup>	kWh/a	196	196	246	246	311	364	
	SEER <sup>(4)</sup>		7.5	7.5	7.2	7.2	6.8	6.8	
Heating (Average Season) <sup>(5)</sup>	Energy efficiency class		A++	A++	A++	A++	A++	A++	
	Capacity	Rated	kW	4.2	4.2	5	5	6.1	7.1
	Total Input	Min-Max	kW	0.8-4.5	0.8-4.5	1.4-5.4	1.4-5.4	1.4-7.5	2.0-8.7
Heating (Average Season) <sup>(5)</sup>	Design load		kW	3.8(-10°C)	3.8(-10°C)	4.2(-10°C)	4.2(-10°C)	4.6(-10°C)	6.7(-10°C)
	Declared Capacity	at reference design temperature	kW	3.8(-10°C)	3.8(-10°C)	4.2(-10°C)	4.2(-10°C)	4.6(-10°C)	6.7(-10°C)
	Capacity	at bivalent temperature	kW	3.8(-10°C)	3.8(-10°C)	4.2(-10°C)	4.2(-10°C)	4.6(-10°C)	6.7(-10°C)
Heating (Average Season) <sup>(5)</sup>	Back up heating capacity		kW	3.4(-15°C)	2.2(-20°C)	3.4(-15°C)	2.3(-20°C)	3.7(-15°C)	5.4(-15°C)
	Annual electricity consumption <sup>(2)</sup>	kWh/a	1215	1242	1351	1380	1489	2204	
	SCOP <sup>(4)</sup>			4.4	4.3	4.4	4.3	4.3	4.2
Indoor Unit	Energy efficiency class		A+	A+	A+	A+	A+	A+	
	Capacity	Rated	kW	5.4	5.4	5.8	5.8	6.8	8.1
	Total Input	Min-Max	kW	1.3-6.0	1.3-6.0	1.4-7.3	1.4-7.3	2.0-9.3	2.2-9.9
Outdoor Unit	Operating Current (Max)	Rated	kW	1.580	1.58	1.7	1.7	1.81	2.23
	Input	Rated	kW	9.5	9.5	12.3	12.3	14.5	16.6
	Operating Current (Max)	A	0.027	0.027	0.035	0.035	0.062	0.058	
Indoor Unit	Dimensions	H*W*D	mm	299-798-195	299-798-195	299-798-195	299-798-195	325-1100-238	325-1100-238
	Weight	kg	10	10	10	10	16	16	
	Air Volume (Slo-Lo-Mid-Hi-SH <sup>(3)</sup> ) (Dry/Wet)	Cooling	m <sup>3</sup> /min	5.0 - 5.8 - 6.7 - 7.9 - 9.1	5.0 - 5.8 - 6.7 - 7.9 - 9.1	5.6 - 6.2 - 7.0 - 8.2 - 9.9	5.6 - 6.2 - 7.0 - 8.2 - 9.9	9.8-11.3-13.4-15.6-18.3	9.7-11.5-13.3-15.4-17.8
Indoor Unit	Sound Level (SPL) (Slo-Lo-Mid-Hi-SH <sup>(3)</sup> )	Cooling	dB(A)	28 - 31 - 34 - 38 - 42	28 - 31 - 34 - 38 - 42	30 - 33 - 36 - 40 - 45	30 - 33 - 36 - 40 - 45	29 - 37 - 41 - 45 - 49	30 - 37 - 41 - 45 - 49
	Heating	dB(A)	28 - 31 - 36 - 42 - 47	28 - 31 - 36 - 42 - 47	30 - 33 - 38 - 43 - 49	30 - 33 - 38 - 43 - 49	29 - 37 - 41 - 45 - 49	30 - 37 - 41 - 45 - 49	
	Sound Level (PWL)	Cooling	dB(A)	57	57	58	58	65	65
Indoor Unit	Dimensions	H*W*D	mm	550-800-285	550-800-285	880-840-330	880-840-330	880-840-330	880-840-330
	Weight	kg	35	35	55	55	50	53	
	Air Volume	Cooling	m <sup>3</sup> /min	35.2	35.2	44.6	44.6	49.2	50.1
Outdoor Unit	Sound Level (SPL)	Heating	m <sup>3</sup> /min	33.6	33.6	44.6	44.6	52	55
	Sound Level (PWL)	Cooling	dB(A)	50	50	52	52	55	55
	Heating	dB(A)	51	51	52	52	55	55	
Ext. Piping	Sound Level (PWL)	Cooling	dB(A)	63	63	65	65	65	65
	Operating Current (Max)	A	9.2	9.2	12	12	14	16.1	
	Breaker Size	A	10	10	16	16	20	20	
Ext. Piping	Diameter	Liquid/Gas	mm	6.35 / 9.52	6.35 / 9.52	6.35 / 12.7	6.35 / 12.7	6.35 / 15.88	9.52 / 15.88
	Max.Length	Out-In	m	20	20	30	30	30	30
	Max.Height	Out-In	m	12	12	15	15	15	15
Guaranteed Operating Range (Outdoor)		Cooling	°C	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46	-10 ~ +46
		Heating	°C	-15 ~ +24	-20 ~ +24	-15 ~ +24	-20 ~ +24	-15 ~ +24	-15 ~ +24

(\*) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(\*\*) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(<sup>(3)</sup>) SH: Super High

(<sup>(4)</sup>) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

(<sup>(5)</sup>) Please see page 47 for heating (warmer season) specifications.

# MSZ-H SERIES

Compact, high-performance indoor and outdoor units and advanced inverter technologies provide superior energy savings and comfort in all rooms.

MSZ-HJ25/35/50VA



## Stylish Design with Flat Panel Front

A stylish flat panel design is employed for the front of the indoor unit. The simple look matches room aesthetics.



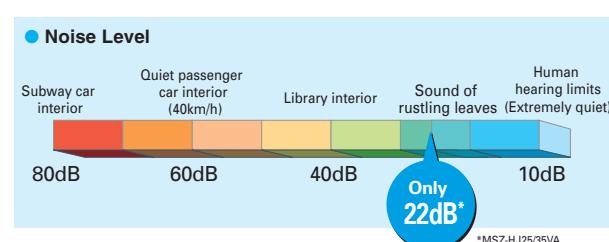
## Advanced Inverter Control – Efficient Operation All the Time



Mitsubishi Electric's cutting-edge inverter technologies are adopted to provide automatic adjustment of operation load according to need. This reduces excessive consumption of electricity, and thereby realises an Energy Rank "A" rating for 25-35 classes and "A+" for 50 classes.

## Silent Operation

Quiet, relaxing space is within reach. Operational noise is a low 22dB (25-35 classes). Operation is so silent you might even forget the air conditioner is on.



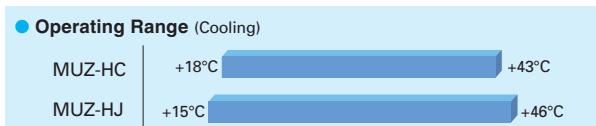
## Long Piping Length

Compared to previous models, the piping length is significantly increased, further enhancing the ease and flexibility of installation.

	MSZ-HJ	MSZ-HC
Max piping length	20m	10m
Max piping height	12m	5m

## Operating Range

As a result of an extended operating range when cooling, these models accommodate a wider range of usage environments and applications than previous models.



## Compact Units

The widths of both indoor and outdoor units are compact, making installation in small, tight spaces possible.

Indoor Unit: MSZ-HJ25/35/50VA

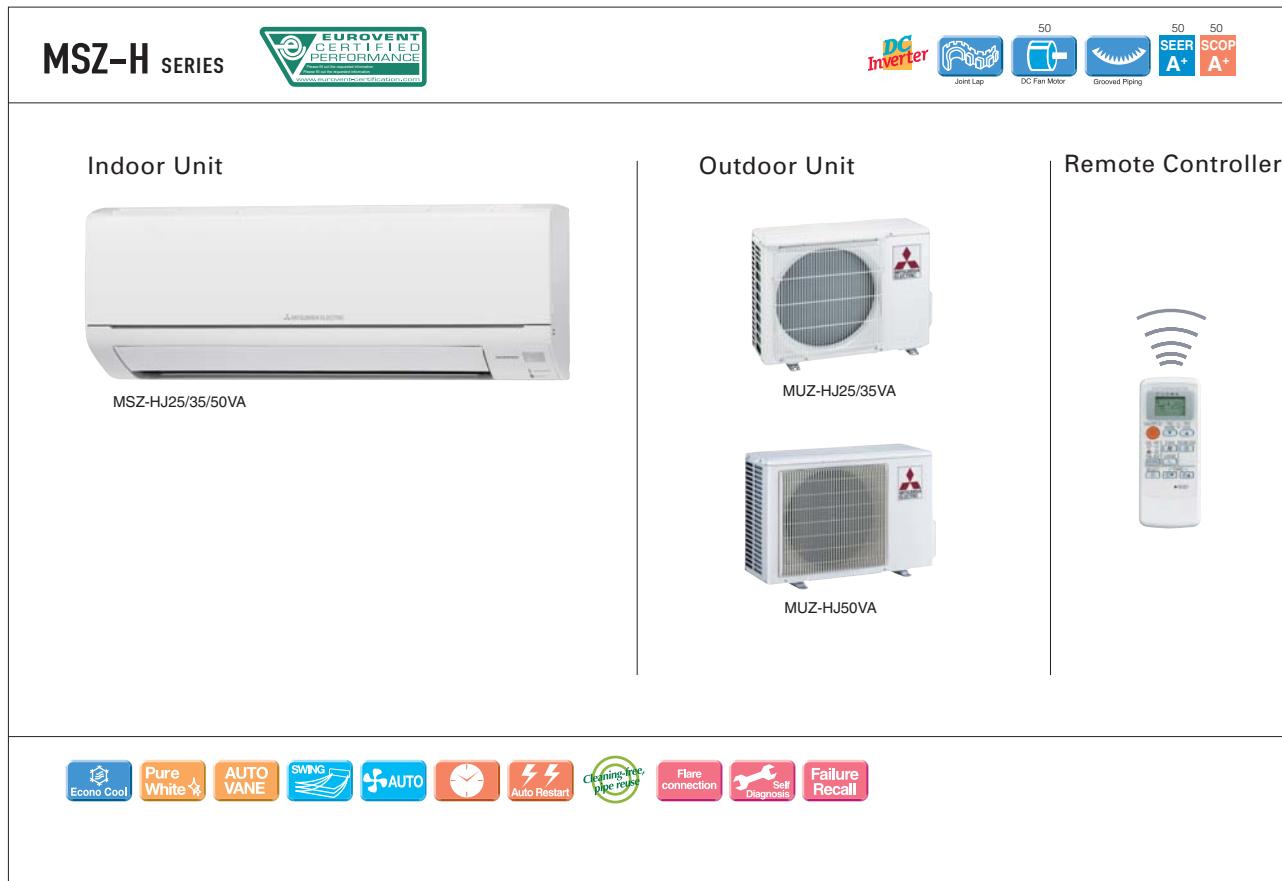


Only 799mm wide

Outdoor Unit: MUZ-HJ25/35VA



Only 699mm wide



Type		Inverter Heat Pump		
Indoor Unit		MSZ-HJ25VA	MSZ-HJ35VA	MSZ-HJ50VA
Outdoor Unit		MUZ-HJ25VA	MUZ-HJ35VA	MUZ-HJ50VA
Refrigerant		R410A <sup>(1)</sup>		
Power Supply	Source		Indoor Power supply	
	Outdoor (V / Phase / Hz)		230V/Single/50Hz	
Cooling	Design load	kW	2.5	3.1
	Annual electricity consumption <sup>(2)</sup>	kWh/a	171	212
	SEER <sup>(4)</sup>		5.1	5.1
Heating (Average Season) <sup>(5)</sup>	Energy efficiency class		A	A+
	Rated	kW	2.5	3.15
	Capacity	Min-Max	1.3 - 3.0	1.4 - 3.5
Operating Current (Max)	Total Input	kW	0.730	1.040
	Design load	kW	1.9(-10°C)	2.4(-10°C)
	Declared Capacity	at reference design temperature	1.9(-10°C)	2.4(-10°C)
Heating (Average Season) <sup>(5)</sup>	at bivalent temperature	kW	1.9(-10°C)	2.4(-10°C)
	at operation limit temperature	kW	1.9(-10°C)	2.4(-10°C)
	Back up heating capacity	kW	0.0(-10°C)	0.0(-10°C)
SCOP <sup>(4)</sup>	Annual electricity consumption <sup>(2)</sup>	kWh/a	698	885
	Energy efficiency class		3.8	3.8
	Rated	kW	3.15	3.6
Indoor Unit	Capacity	Min-Max	0.9 - 3.5	1.1 - 4.1
	Total Input	Rated	0.870	0.995
	Dimensions	H*W*D	290-799-232	290-799-232
Outdoor Unit	Weight	kg	9	9
	Air Volume (Slo-Lo-Mid-Hi-SH <sup>(3)</sup> ) (Dry/Wet)	Cooling	3.8 - 5.5 - 7.3 - 9.5	3.8 - 5.7 - 7.8 - 10.9
	Heating		3.5 - 5.5 - 7.5 - 10.0	3.5 - 5.5 - 7.5 - 10.3
Ext. Piping	Sound Level (SPL) (Slo-Lo-Mid-Hi-SH <sup>(3)</sup> )	Cooling	22 - 30 - 37 - 43	22 - 31 - 38 - 45
	Heating		23 - 30 - 37 - 43	23 - 30 - 37 - 44
	Sound Level (PWL)	Cooling	57	60
Guaranteed Operating Range (Outdoor)	Dimensions	H*W*D	538-699-249	550-800-285
	Weight	kg	24	25
	Air Volume	Cooling	31.5	31.5
Ext. Piping	Heating		31.5	34.8
	Sound Level (SPL)	Cooling	50	50
	Heating		50	51
Ext. Piping	Sound Level (PWL)	Cooling	63	64
	Heating		64	64
	Operating Current (Max)	A	5.5	6.2
Ext. Piping	Breaker Size	A	10	10
	Diameter	Liquid/Gas	6.35/9.52	6.35/9.52
	Max.Length	Out-In	20	20
Ext. Piping	Max.Height	m	12	12
	Guaranteed Operating Range (Outdoor)	Cooling	+15 ~ +46	+15 ~ +46
	Heating	°C	-10 ~ +24	-10 ~ +24

(\*)1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(\*)2) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(\*)3) SH: Super High

(\*)4) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

(\*)5) Please see page 47 for heating (warmer season) specifications.

# MFZ SERIES

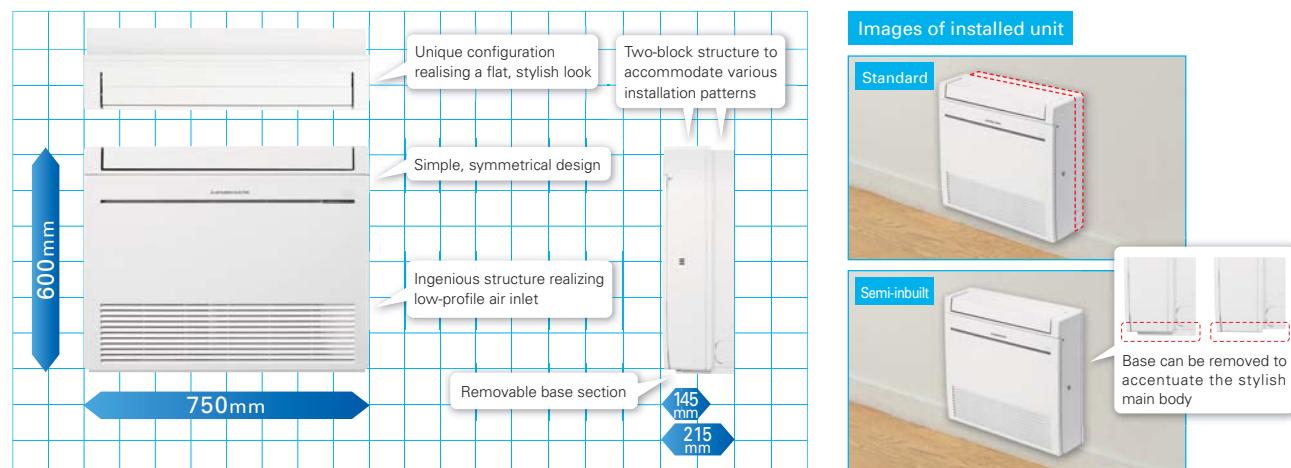
High Capacity, Energy Savings and a Design in Harmony with Living Spaces  
Raise the Value of Your Room to the Next Level.

MFZ-KJ25/35/50VE



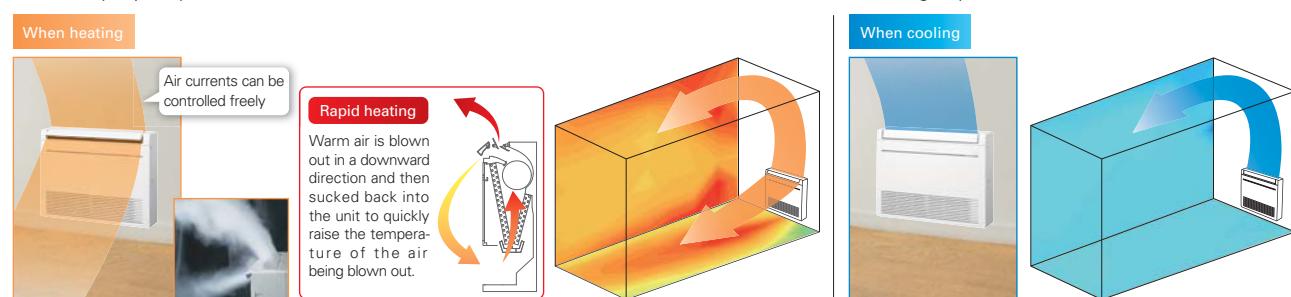
## Simple, Flat Design

Uneven surfaces have been smoothed to provide a simple design with linear beauty, harmonised with all types of interiors.



## Multi-flow Vane

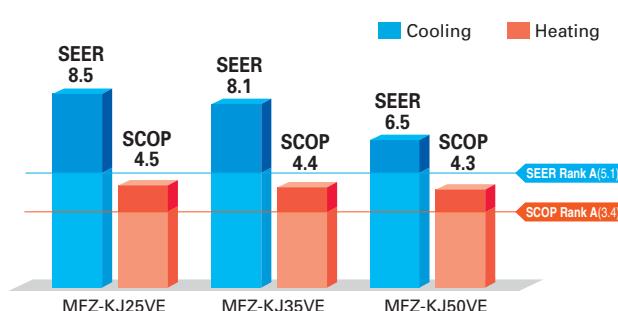
Three uniquely shaped vanes control the airflow and allow the freedom to customize comfort according to preferences.



## Excellent Energy-saving Performance

25  
SEER A+++ SCOP A+

SEER A+++ (25) and SCOP A+ (25/35/50) ratings have been achieved through development focusing on compliance with European energy-related product (ErP) regulations.

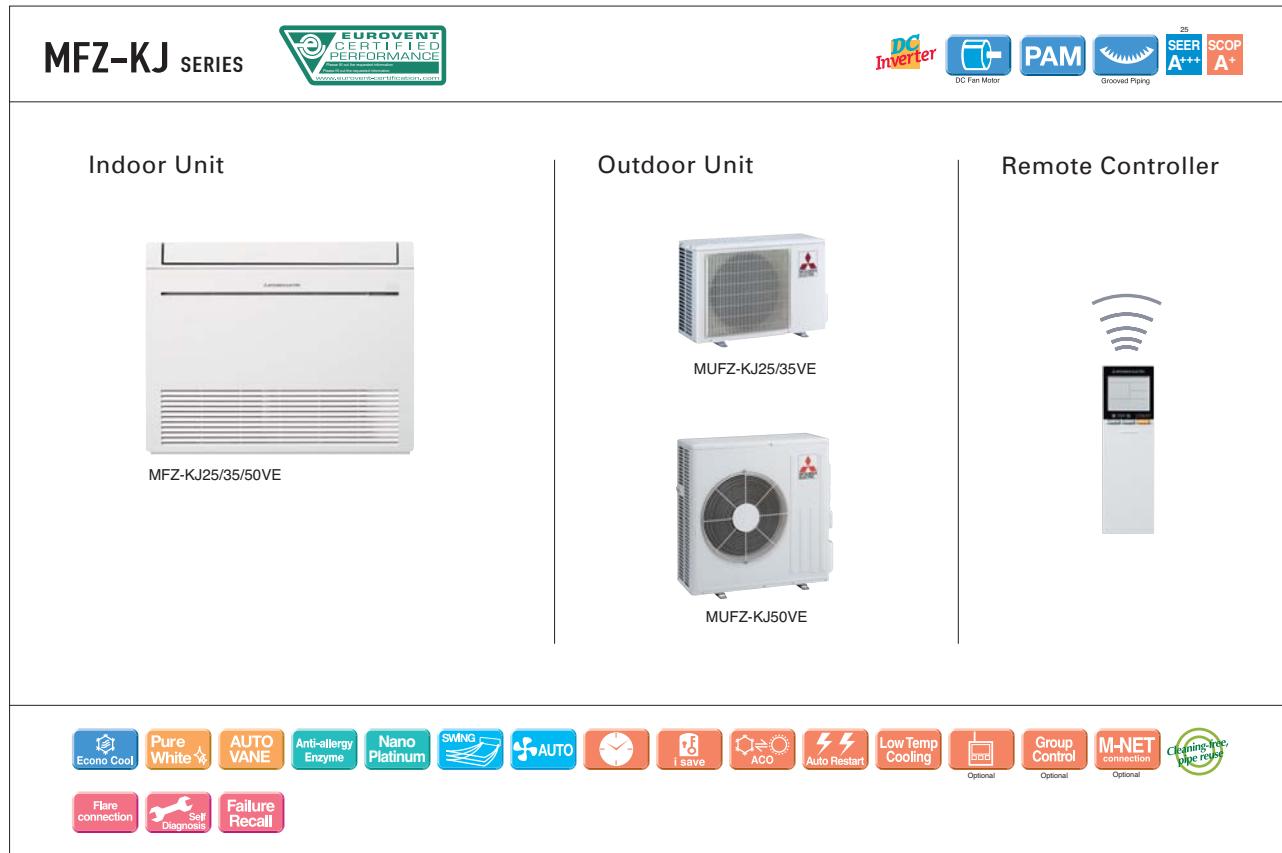


## Weekly Timer (Introduced in response to market demand)

Temperature settings and On/Off control can be managed over a period of one week using the Weekly Timer. Up to eight setting patterns per calendar day are possible.

## Trouble-free Installation and Maintenance

Using the original installation plate that comes as standard equipment, installation of the unit is a snap. Levelling adjusters are provided, preventing damage to the wall. Generous pipe length (20–30 metres) is provided, so there is no need to worry about distance to the outdoor unit. All units are equipped with an automatic self-diagnostic function as well. Simply access the trouble log recall mode for instant troubleshooting.



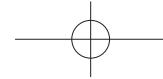
Type		Inverter Heat Pump		
Indoor Unit		MFZ-KJ25VE	MFZ-KJ35VE	MFZ-KJ50VE
Outdoor Unit		MUFZ-KJ25VE	MUFZ-KJ35VE	MUFZ-KJ50VE
Refrigerant		R410A <sup>(*)1)</sup>	R410A <sup>(*)1)</sup>	R410A <sup>(*)1)</sup>
Power Supply	Source	Outdoor power supply		
Outdoor(V/Phase/Hz)		230 / Single / 50		
Cooling	Design load	kW	2.5	3.5
	Annual electricity consumption <sup>(*)2)</sup>	kWh/a	102	150
	SEER <sup>(*)4)</sup>		8.5	8.1
	Capacity	Rated	2.5	3.5
Heating (Average Season)	Capacity	Min-Max	0.5 - 3.4	0.5 - 3.7
	Total Input	Rated	0.540	0.940
	Design load	kW	3.4(-10°C)	3.5(-10°C)
	Declared Capacity	at reference design temperature	3.4(-10°C)	3.5(-10°C)
Heating (Average Season)	Capacity	at bivalent temperature	3.4(-10°C)	3.5(-10°C)
	Back up heating capacity	kW	2.4(-15°C)	2.9(-15°C)
	Annual electricity consumption <sup>(*)2)</sup>	kWh/a	1059	1110
	SCOP <sup>(*)4)</sup>		4.5	4.4
Indoor Unit	Capacity	Energy efficiency class	A <sup>++</sup>	A <sup>+</sup>
	Capacity	Rated	2.5	3.5
	Capacity	Min-Max	0.5 - 3.4	0.5 - 3.7
	Total Input	Rated	0.540	0.940
Outdoor Unit	Operating Current (Max)	A	9.4	9.4
	Input	Rated	0.016	0.016
	Operating Current (Max)	A	0.17	0.17
	Dimensions	H*W*D	600-750-215	600-750-215
Ext. Piping	Weight	kg	15	15
	Air Volume (SLo-Lo-Mid-Hi-SHi <sup>(*)3)</sup>	Cooling	3.9 - 4.9 - 5.9 - 7.1 - 8.2	3.9 - 4.9 - 5.9 - 7.1 - 8.2
	Air Volume (SLo-Lo-Mid-Hi-SHi <sup>(*)3)</sup>	Heating	3.9 - 5.1 - 6.2 - 7.7 - 9.7	3.9 - 5.1 - 6.2 - 7.7 - 9.7
	Sound Level (SPL)	Cooling	dB(A) 20 - 25 - 30 - 35 - 39	dB(A) 20 - 25 - 30 - 35 - 39
Ext. Piping	Sound Level (SPL)	Heating	dB(A) 19 - 25 - 30 - 35 - 41	dB(A) 19 - 25 - 30 - 35 - 41
	Sound Level (PWL)	Cooling	dB(A) 49	dB(A) 50
	Dimensions	H*W*D	550-800-285	550-800-285
	Weight	kg	37	37
Ext. Piping	Air Volume	Cooling	m <sup>3</sup> /min 31.3	m <sup>3</sup> /min 31.3
	Air Volume	Heating	m <sup>3</sup> /min 33.6	m <sup>3</sup> /min 33.6
	Sound Level (SPL)	Cooling	dB(A) 46	dB(A) 47
	Sound Level (SPL)	Heating	dB(A) 51	dB(A) 51
Ext. Piping	Sound Level (PWL)	Cooling	dB(A) 59	dB(A) 60
	Sound Level (PWL)	Heating	dB(A) 9.2	dB(A) 9.2
	Operating Current (Max)	A	10	10
	Breaker Size	A	10	16
Ext. Piping	Diameter	Liquid/Gas	mm 6.35/9.52	mm 6.35/9.52
	Max.Length	Out-In	m 20	m 20
	Max.Height	Out-In	m 12	m 12
	Guaranteed Operating Range	Cooling	°C -10 ~ +46	°C -10 ~ +46
Ext. Piping	Guaranteed Operating Range	Heating	°C -15 ~ +24	°C -15 ~ +24

(\*1) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(\*2) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(\*3) SHi: Super High

(\*4) SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

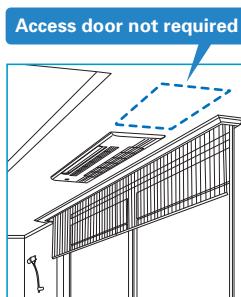


# MLZ SERIES

Introducing a new type of ceiling cassette for the Multi-Split Series with streamlined interior dimensions and a sharp, sleek appearance.

## Ceiling Mounted

Installing the ceiling-mounted MLZ Series unit in a room creates a more spacious feel that enhances room comfort. This overhead format is also an excellent solution when lighting equipment is installed at the centre of the room and fixtures such as book shelves are mounted on wall surfaces.



## Slim Body

The new units are designed with a slim body (only 175mm high), ensuring easy installation even when low ceiling cavities limit installation space. The need for ceiling cavity service space is also eliminated, further reducing the dimensions required for installation.



## Set Airflow According to Ceiling Height

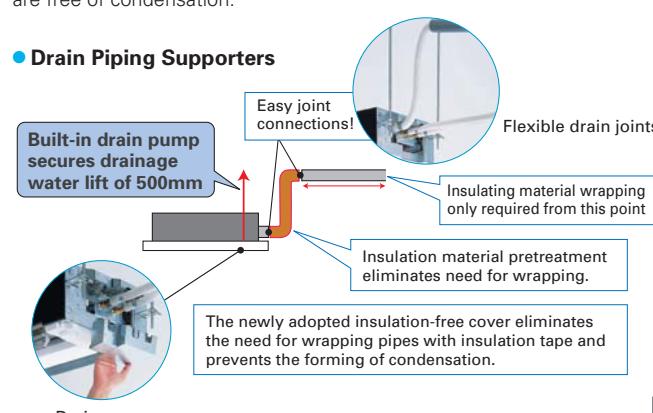
Dual-level airflow selection is engineered to accommodate specific ceiling heights. This is a key feature for adjusting airflow effectively when it is either too strong or too weak due to being mismatched with the height of the ceiling.

	25	35	50
Standard	2.4m	2.4m	2.4m
High ceiling	2.7m	2.7m	2.7m

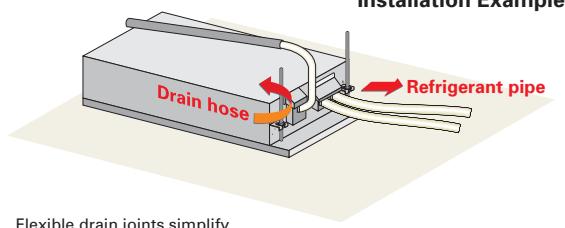
## Easy Installation

A built-in drain pump (500mm lift) and flexible drain joints make attaching the drain hose in the ceiling cavity easy, resulting in simple and fast installation. Tight yet flexible fittings eliminate the need of wrapping with heat-insulation tape, and ensure that pipe and drain cover connections are free of condensation.

### • Drain Piping Supporters

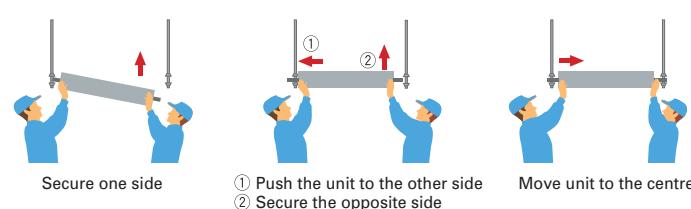
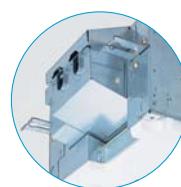


### Installation Example



### • Easy Mounting Plate

Suspension work simplified with well-designed mounting plates





Type		Inverter Heat Pump		
Indoor Unit		MLZ-KA25VA		MLZ-KA35VA
Outdoor Unit		for MXZ connection		MLZ-KA50VA
Refrigerant		R410A <sup>(*)1</sup>		
Power Supply	Source	Outdoor Power supply		
Outdoor (V / Phase / Hz)		230V / Single / 50Hz		
Cooling	Design load	kW	-	-
	Annual electricity consumption <sup>(*)2</sup>	kWh/a	-	-
	SEER <sup>(*)4</sup>		-	-
	Energy efficiency class		-	-
Heating (Average Season)	Capacity	Rated kW	-	-
	Min-Max kW	-	-	-
	Total Input	Rated kW	-	-
	Design load	kW	-	-
	Declared Capacity	at reference design temperature kW	-	-
	Capacity	at bivalent temperature kW	-	-
	Back up heating capacity	kW	-	-
	Annual electricity consumption <sup>(*)2</sup>	kWh/a	-	-
	SCOP <sup>(*)4</sup>		-	-
	Energy efficiency class		-	-
	Capacity	Rated kW	-	-
	Min-Max kW	-	-	-
Operating Current (Max)	Total Input	Rated kW	-	-
	Input	Rated A	0.4	0.4
	Operating Current (Max)	kW	0.040	0.040
	Dimensions	H*W*D mm	175-1102-360	175-1102-360
Indoor Unit	Weight	kg	15	15
	Air Volume (SLo-Lo-Mid-Hi-SH <sup>(*)3</sup> ) Cooling	m <sup>3</sup> /min	7.2-8.0-8.8	7.3-8.4-9.4
	Heating	m <sup>3</sup> /min	7.0-8.2-9.2	7.7-8.8-9.9
	Sound Level (SPL) (SLo-Lo-Mid-Hi-SH <sup>(*)3</sup> ) Cooling	dB(A)	29-32-35	31-34-37
Panel	Heating	dB(A)	28-32-36	31-35-38
	Sound Level (PWL) Cooling	dB(A)	-	-
	Dimensions	H*W*D mm	34-1200-414	34-1200-414
	Weight	kg	3.5	3.5
Outdoor Unit	Dimensions	H*W*D mm	-	-
	Weight	kg	-	-
	Air Volume	Cooling m <sup>3</sup> /min	-	-
	Heating	m <sup>3</sup> /min	-	-
	Sound Level (SPL) Cooling	dB(A)	-	-
	Heating	dB(A)	-	-
	Sound Level (PWL) Cooling	dB(A)	-	-
	Operating Current (Max)	A	-	-
Ext. Piping	Breaker Size	A	-	-
	Diameter	Liquid/Gas mm	6.35/9.52	6.35/9.52
	Max.Length	Out-In m	-	-
	Max.Height	Out-In m	-	-
Guaranteed Operating Range (Outdoor)	Cooling	°C	-	-
	Heating	°C	-	-

(\*)1 Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(\*)2 Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

(\*)3 SH: Super High

(\*)4 SEER, SCOP and other related description are based on COMMISSION DELEGATED REGULATION (EU) No.626/2011. The temperature conditions for calculating SCOP are based on "Average Season".

## Specification on Warmer Condition

Type		Inverter Heat Pump					
Indoor Unit		MSZ-FH25VE		MSZ-FH35VE		MSZ-FH50VE	
Outdoor Unit		MUZ-FH25VE	MUZ-FH25VEHZ	MUZ-FH35VE	MUZ-FH35VEHZ	MUZ-FH50VE	MUZ-FH50VEHZ
Refrigerant							
	Design load	kW	2.5	2.5	3.5	3.5	5.0
Cooling	Annual electricity consumption <sup>(*)</sup>	kWh/a	96	96	138	138	244
	SEER		9.1	9.1	8.9	8.9	7.2
	Energy efficiency class		A+++	A+++	A+++	A++	A++
	Design load	kW	1.7 (2°C)	1.8 (2°C)	2.0 (2°C)	2.2 (2°C)	2.5 (2°C)
Heating (Warmer Season)	at reference design temperature	kW	1.7 (2°C)	1.8 (2°C)	2.0 (2°C)	2.2 (2°C)	2.5 (2°C)
	Declared Capacity	kW	1.7 (2°C)	1.8 (2°C)	2.0 (2°C)	2.2 (2°C)	2.5 (2°C)
	at bivalent temperature	kW	2.5 (-15°C)	1.7 (-25°C)	3.2 (-15°C)	2.6 (-25°C)	5.2 (-15°C)
	at operation limit temperature	kW	0.0 (2°C)	0.0 (2°C)	0.0 (2°C)	0.0 (2°C)	0.0 (2°C)
	Back up heating capacity	kW	0.0 (2°C)	0.0 (2°C)	0.0 (2°C)	0.0 (2°C)	0.0 (2°C)
	Annual electricity consumption <sup>(*)</sup>	kWh/a	376	397	429	471	614
	SCOP		6.3	6.3	6.5	4.8 / 6.5	5.7
	Energy efficiency class		A+++	A+++	A+++	A+++	A+++

Type		Inverter Heat Pump							
Indoor Unit		MSZ-EF25VE2		MSZ-EF35VE2		MSZ-EF42VE2		MSZ-EF50VE2	
Outdoor Unit		MUZ-EF25VE	MUZ-EF25VEH	MUZ-EF35VE	MUZ-EF35VEH	MUZ-EF42VE	MUZ-EF50VE		
Refrigerant									
	Design load	kW	2.5	2.5	3.5	3.5	4.2	5.0	
Cooling	Annual electricity consumption <sup>(*)</sup>	kWh/a	103	103	144	144	192	244	
	SEER		8.5	8.5	8.5	8.5	7.7	7.2	
	Energy efficiency class		A+++	A+++	A+++	A++	A++	A++	
	Design load	kW	1.3 (2°C)	1.3 (2°C)	1.6 (2°C)	1.6 (2°C)	2.1 (2°C)	2.3 (2°C)	
Heating (Warmer Season)	at reference design temperature	kW	1.3 (2°C)	1.3 (2°C)	1.6 (2°C)	1.6 (2°C)	2.1 (2°C)	2.3 (2°C)	
	Declared Capacity	kW	1.3 (2°C)	1.3 (2°C)	1.6 (2°C)	1.6 (2°C)	2.1 (2°C)	2.3 (2°C)	
	at bivalent temperature	kW	2.0 (-15°C)	1.6 (-20°C)	2.4 (-15°C)	1.7 (-20°C)	3.4 (-15°C)	3.5 (-15°C)	
	at operation limit temperature	kW	0.0 (2°C)						
	Back up heating capacity	kW	0.0 (2°C)						
	Annual electricity consumption <sup>(*)</sup>	kWh/a	304	304	396	396	491	557	
	SCOP		6.0	6.0	5.7	5.7	6.0	5.8	
	Energy efficiency class		A+++	A+++	A+++	A+++	A+++	A+++	

Type		Inverter Heat Pump							
Indoor Unit		MSZ-SF25VE		MSZ-SF35VE		MSZ-SF42VE		MSZ-SF50VE	
Outdoor Unit		MUZ-SF25VE	MUZ-SF25VEH	MUZ-SF35VE	MUZ-SF35VEH	MUZ-SF42VE	MUZ-SF42VEH	MUZ-SF50VE	MUZ-SF50VEH
Refrigerant									
	Design load	kW	2.5	2.5	3.5	3.5	4.2	4.2	5.0
Cooling	Annual electricity consumption <sup>(*)</sup>	kWh/a	116	116	171	171	196	196	246
	SEER		7.6	7.6	7.2	7.2	7.5	7.5	7.2
	Energy efficiency class		A++						
	Design load	kW	1.3 (2°C)	1.3 (2°C)	1.6 (2°C)	1.6 (2°C)	2.1 (2°C)	2.1 (2°C)	2.3 (2°C)
Heating (Warmer Season)	at reference design temperature	kW	1.3 (2°C)	1.3 (2°C)	1.6 (2°C)	1.6 (2°C)	2.1 (2°C)	2.1 (2°C)	2.3 (2°C)
	Declared Capacity	kW	1.3 (2°C)	1.3 (2°C)	1.6 (2°C)	1.6 (2°C)	2.1 (2°C)	2.1 (2°C)	2.3 (2°C)
	at bivalent temperature	kW	2.0 (-15°C)	1.6 (-20°C)	2.2 (-15°C)	1.6 (-20°C)	3.4 (-15°C)	2.2 (-20°C)	3.4 (-15°C)
	at operation limit temperature	kW	0.0 (2°C)						
	Back up heating capacity	kW	0.0 (2°C)						
	Annual electricity consumption <sup>(*)</sup>	kWh/a	337	337	923 / 418	417	507	507	563
	SCOP		5.4	5.4	5.4	5.4	5.8	5.8	5.7
	Energy efficiency class		A+++						

Type		Inverter Heat Pump					
Indoor Unit		MSZ-GF20VE		MSZ-GF71VE			
Outdoor Unit		MUZ-GF20VE	MUZ-GF71VE	MUZ-GF20VEH	MUZ-GF71VEH		
Refrigerant							
	Design load	kW	6.1	7.1			
Cooling	Annual electricity consumption <sup>(*)</sup>	kWh/a	311	364			
	SEER		6.8	6.8			
	Energy efficiency class		A++	A++			
	Design load	kW	2.5 (2°C)	3.7 (2°C)			
Heating (Warmer Season)	at reference design temperature	kW	2.5 (2°C)	3.7 (2°C)			
	Declared Capacity	kW	2.5 (2°C)	3.7 (2°C)			
	at bivalent temperature	kW	3.7 (-15°C)	5.4 (-15°C)			
	at operation limit temperature	kW	0.0 (2°C)	0.0 (2°C)			
	Back up heating capacity	kW	664	963			
	Annual electricity consumption <sup>(*)</sup>	kWh/a	5.3	5.4			
	SCOP		A+++	A+++			
	Energy efficiency class		A+++	A+++			

Type		Inverter Heat Pump					
Indoor Unit		MSZ-HJ25VA		MSZ-HJ35VA		MSZ-HJ50VA	
Outdoor Unit		MUZ-HJ25VA	MUZ-HJ35VA	MUZ-HJ50VA	MUZ-HJ50VAH	MUZ-HJ50VAB	MUZ-HJ50VAD
Refrigerant							
	Design load	kW	2.5	3.1	5.0		
Cooling	Annual electricity consumption <sup>(*)</sup>	kWh/a	171	212	292		
	SEER		5.1	5.1	6.0		
	Energy efficiency class		A	A	A+		
	Design load	kW	1.1 (2°C)	1.3 (2°C)	2.1 (2°C)		
Heating (Warmer Season)	at reference design temperature	kW	1.1 (2°C)	1.3 (2°C)	2.1 (2°C)		
	Declared Capacity	kW	1.1 (2°C)	1.3 (2°C)	2.1 (2°C)		
	at bivalent temperature	kW	1.9 (-10°C)	2.4 (-10°C)	3.8 (-10°C)		
	at operation limit temperature	kW	0.0 (2°C)	0.0 (2°C)	0.0 (2°C)		
	Back up heating capacity	kW	356	426	539		
	Annual electricity consumption <sup>(*)</sup>	kWh/a	4.3	4.3	5.5		
	SCOP		A+	A+	A++		
	Energy efficiency class		A+	A+	A++		

(\*) Refrigerant leakage contributes to climate change. Refrigerant with lower global warming potential (GWP) would contribute less to global warming than a refrigerant with higher GWP, if leaked to the atmosphere. This appliance contains a refrigerant fluid with a GWP equal to 1975. This means that if 1 kg of this refrigerant fluid would be leaked to the atmosphere, the impact on global warming would be 1975 times higher than 1 kg of CO<sub>2</sub>, over a period of 100 years. Never try to interfere with the refrigerant circuit yourself or disassemble the product yourself and always ask a professional.

(\*\*) Energy consumption based on standard test results. Actual energy consumption will depend on how the appliance is used and where it is located.

